

Fig.1.

*Pst*I
 CAGGTGCAGCTGCAGGAGTCAGGGGGAGGATTGGTGCAGGCTGGGGGCTCTCTGAGACTC
 Q V Q L Q E S G G G L V Q A G G S L R L
 TCCTGTGCAGCCTCGGGACGCGCCACCAGTGGTCATGGTCACTATGGTATGGGCTGGTTC
 S C A A S G R A T S G H G H Y G M G W F
 CGCCAGGTTCCAGGGAAGGAGCGTGAGTTTGTCGCAGCTATTAGGTGGAGTGGTAAAGAG
 R Q V P G K E R E F V A A I R W S G K E
 ACATGGTATAAAGACTCCGTGAAGGGCCGATTACCATCTCCAGAGATAACGCCAAGACT
 T W Y K D S V K G R F T I S R D N A K T
 ACGGTTTATCTGCAAATGAACAGCCTGAAACCTGAAGATACGGCCGTTTATTATTGTGCC
 T V Y L Q M N S L K P E D T A V Y Y C A
 GCTCGACCGGTCCGCGTGGATGATATTTCCCTGCCGGTTGGGTTTGACTACTGGGGCCAG
 A R P V R V D D I S L P V G F D Y W G Q
 GGGACCCAGGTCACCGTCTCCTCAGAACAAAACTCATCTCAGAAGAGGATCTGAATTAA
 G T Q V T V S S E Q K L I S E E D L N
 TAAGGGCTAAGCTCGAATTC
 EcoRI

Fig.2A.

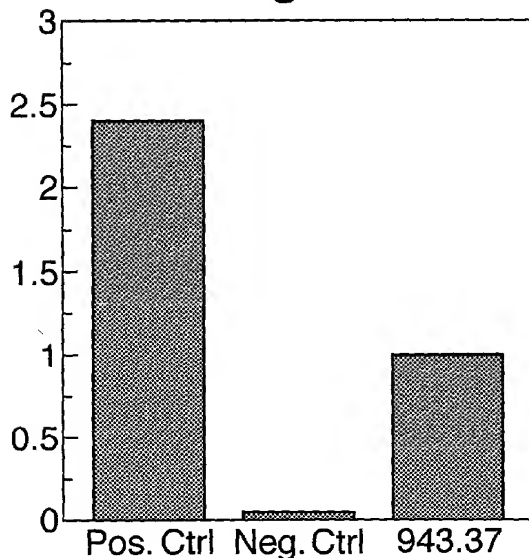


Fig.2B.

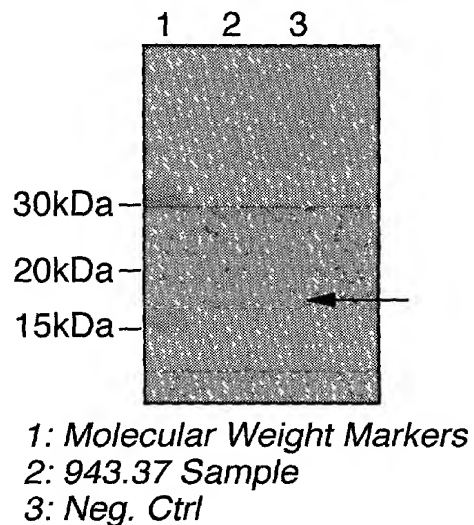


Fig.3A.

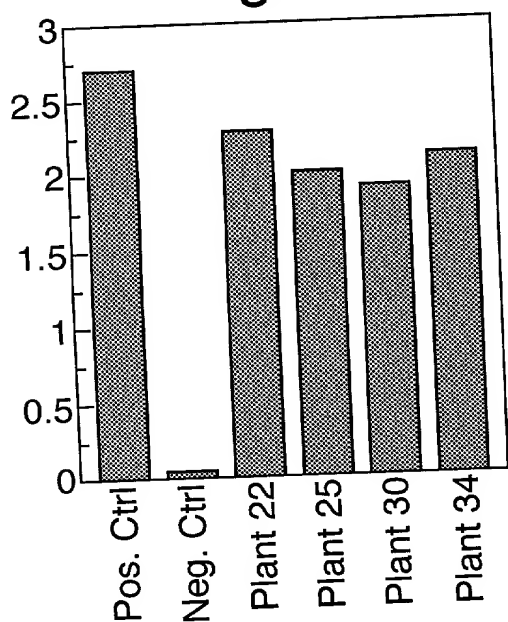


Fig.3B.

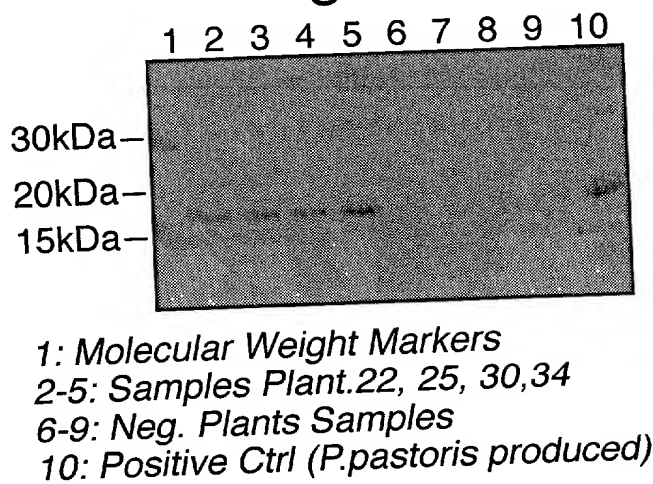


Fig.4.

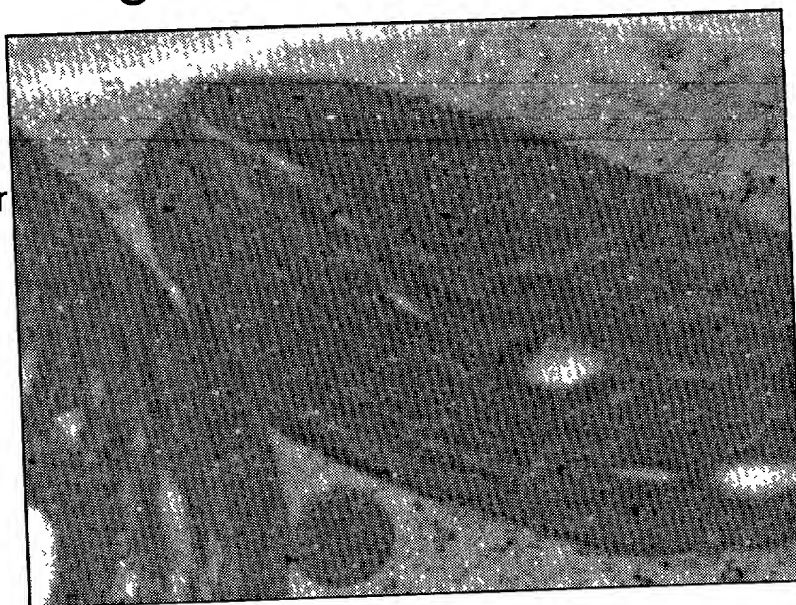
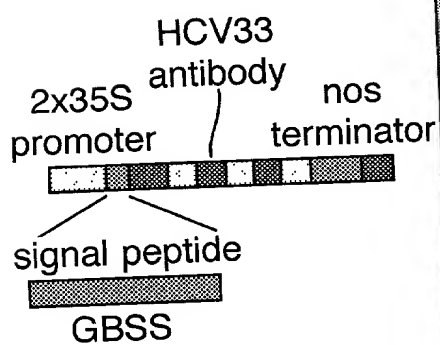


Fig.5.

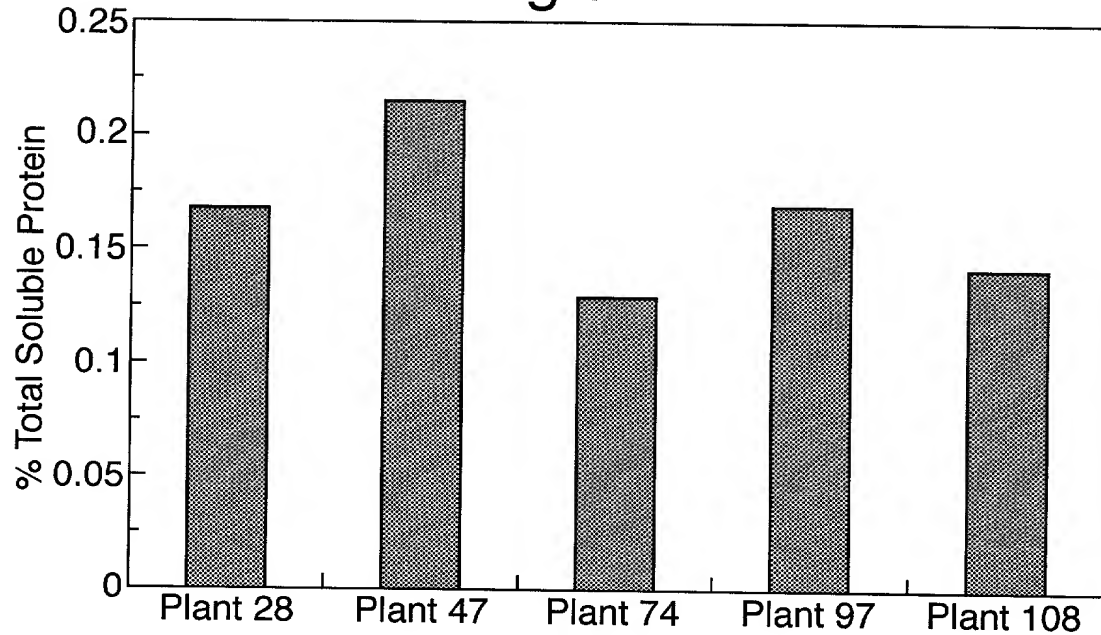


Fig.6.

PstI

CAGGTGCAGCTGCAGCAGTCAGGGGGAGGCTTGGTGCAGGCTGGGGGGTCTCTGAGACTC
 Q V Q L Q Q S G G G L V Q A G G S L R L
 TCCTGTGTAGCTTCTGAAAGCAGCTTCAGCAACAATCACATGGGCTGGTACCGCCGGGCT
 S C V A S E S S F S N N H M G W Y R R A
 CCAGGGAACCAGCGCGAGCTGGTCGCAACTATTAGTCCTGGTGGTAGCACACACTATGTA
 P G N Q R E L V A T I S P G G S T H Y V
 GACTCCGTGAAGGGCCGATTACCATCTCCCGAGACAACGCCAAGAACACAGTGTATCTA
 D S V K G R F T I S R D N A K N T V Y L
 CAAATGGACAGCCTGAAACCAGAGGACACGGCCGTCTATTACTGTGCTGCCAAGGGGAGG
 Q M D S L K P E D T A V Y Y C A A K G R

PstI

GGGCTGCAGGGCTATGCAGTACTGGGGCCAGGGGACCCTGGTCACCGTCTCCTCAGCGCAC
 G L Q A M Q Y W G Q G T L V T V S S A H
 CACAGCGAAGACCCAGCTCCGCGGGCCGCCATCACCATCACCATCACGGGGCCGCAGAA
 H S E D P S S A A A H H H H H H G A A E
 CAAAACTCATCTCAGAAGAGGATCTGAATGGGGCCGCATAGTAACAATTG
 Q K L I S E E D L N G A A *MunI*

4/23

Fig.7.

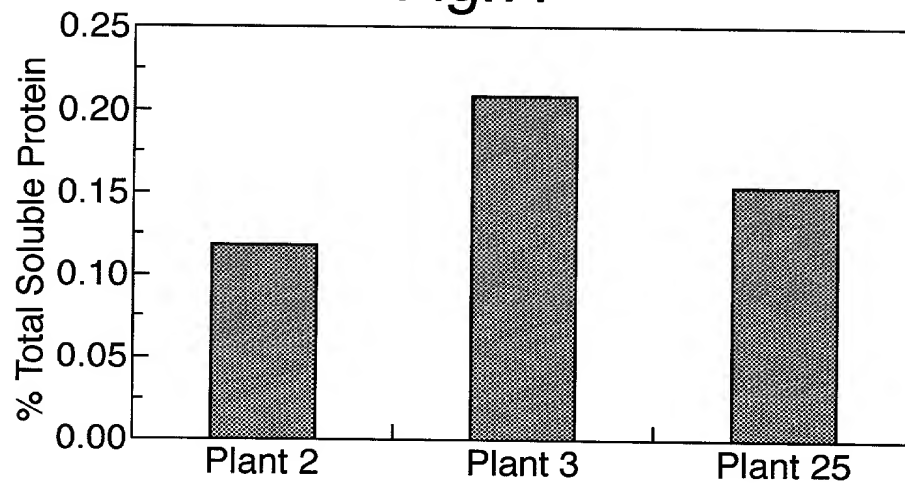


Fig.8.

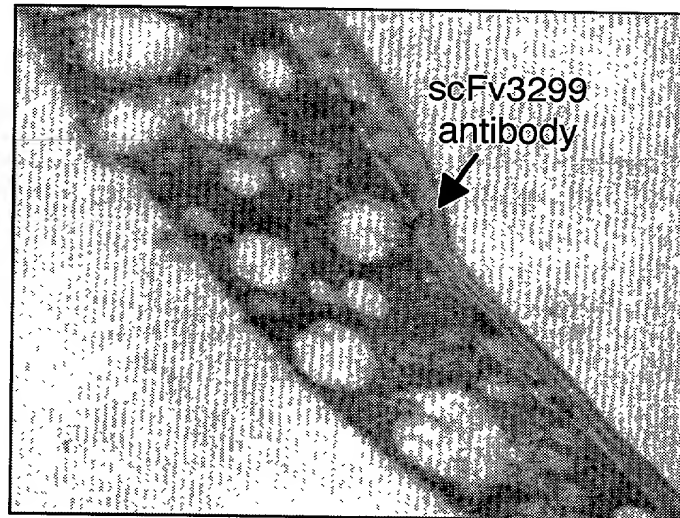
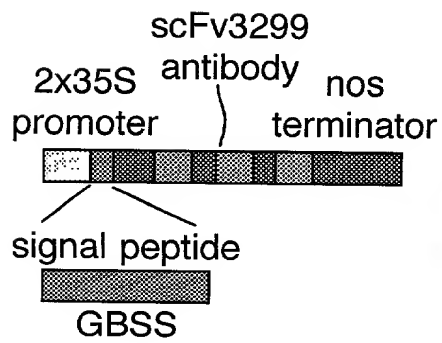


Fig.9.

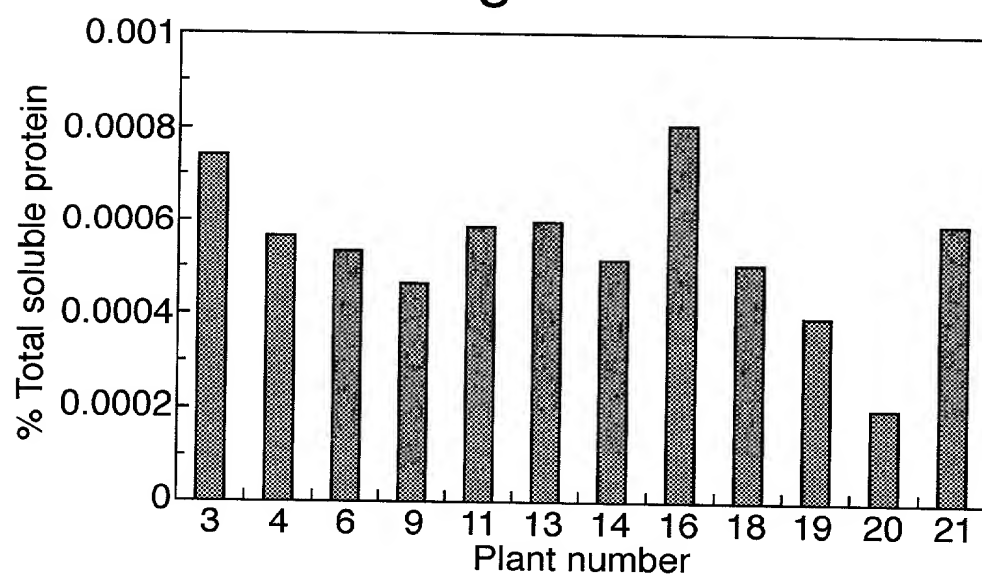


Fig.10A.

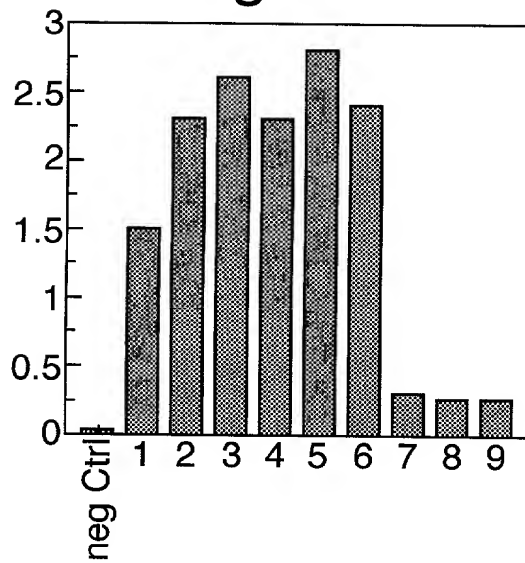
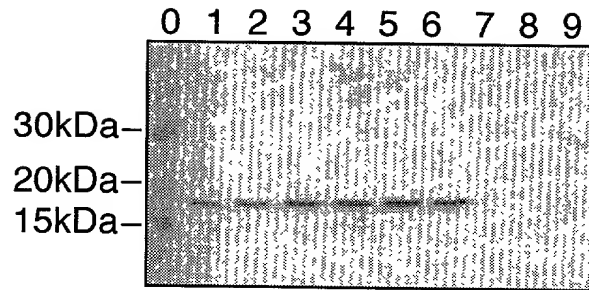


Fig.10B.



0: Molecular Weight Markers
 1-6: pPV.8-PR1a-HCV33-
 myc-SKDEL plants
 7-9: pPV.8-GBSS-HCV33-
 myc-SKDEL plants

Fig.11.

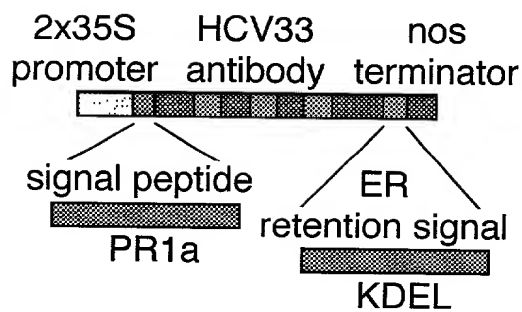


Fig.12.

*Pst*I
 CAGGTGCAGCTGCAGGAGTCTGGGGGAGGCCTGGTGCAGGCTGGGGGGTCTCTGAGACTC
 Q V Q L Q E S G G G L V Q A G G S L R L
 TCCTGTGTAGCCTCTGGAAACACCTTCAGTATCATAGCTATGGCCTGGTACCGCCAGGCT
 S C V A S G N T F S I I A M A W Y R Q A
 CCAGGGAAGCAGCGCGAGGTGGTCGCAAGTATTAATAGTATTGGCAGCACAAATTATGCA
 P G K Q R E V V A S I N S I G S T N Y A
 GACTCCGTGAAGGGGCGATTACCATCTCCAGAGACAACGCCAAGAACACAGTGTATCTG
 D S V K G R F T I S R D N A K N T V Y L
 CAAATGAGCAGCCTGAAACCTGAGGACACGGCCGTCTATTACTGTGCTGCCGGTAATTTG
 Q M S S L K P E D T A V Y Y C A A G N L
 CTGGTTAAGAGGCCTTACTGGGGCCAGGGGACCCTGGTCACCGTCTCCTCAGAACCCAAG
 L V K R P Y W G Q G T L V T V S S E P K
 ACACCAAACCACAACCAGCGGCCGCCCATCACCATCACCATCACGGGGCCGCAGAACAA
 T P K P Q P A A A H H H H H H G A A E Q
 AAACATCTCAGAAGAGGATCTGAATGGGGCCGCATAGTAACAATTG
 K L I S E E D L N G A A *Mun*I

Fig.13.

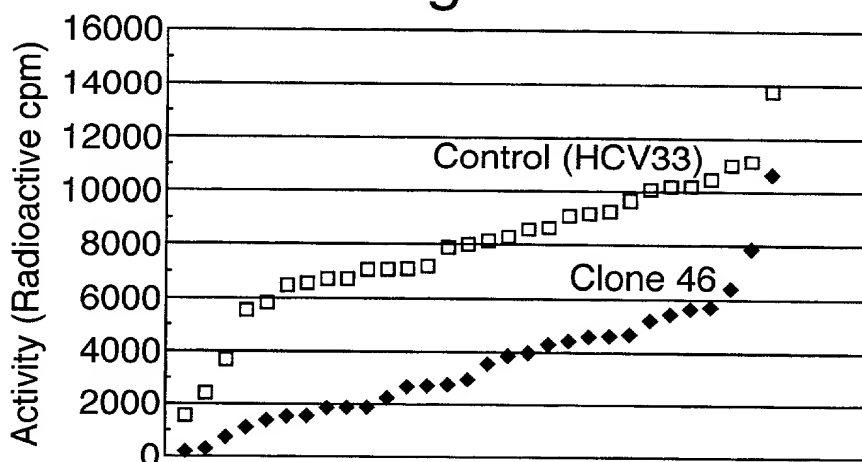


Fig.14.

NcoI *PstI*
ACCATGGCCCCAGGTGAAACCTGCAGCAGTCTGGGGGAGGATTGGTGCAGGCTGGGGGCCCT
 T M A Q V K L Q Q S G G G L V Q A G G P
 CTGAGGCTCTCCTGTGCAGCCTCTGGACGCACCTTCAGTAACTATGCCGTGGGCTGGTTC
 L R L S C A A S G R T F S N Y A V G W F
 CGCCAGGCTCCAGGGAAGGAGCGTGAGTTTGTGCTGCTATTAGCCGTGATGGTGGGCGC
 R Q A P G K E R E F V A A I S R D G G R
 ACATACTATGCGGACTCCGTGAAGGGCCGATTCGCCGTCTCCAGAGACTACGCCGAGAAC
 T Y Y A D S V K G R F A V S R D Y A E N
 ACGGTGTATCTGCAAATGAACAGCCTGAAACCTGAGGACACGGCCGTTTATTACTGTAAC
 T V Y L Q M N S L K P E D T A V Y Y C N
 ACAAGGGCCTACTGGGGCCAGGGGACCCAGGTCACCGTCTCCTCAGCGCACCACAGCGAA
 T R A Y W G Q G T Q V T V S S A H H S E
 GACCCAGCTCCGCGGCCGCCATCACCATCACCATCACGGGGCCGCAGAACAAAACTC
 D P S S A A A H H H H H H G A A E Q K L
 ATCTCAGAAGAGGATCTGAATGGGGCCGCATAGTAACCAATTG
 I S E E D L N G A A *MunI*

Fig.15.

NcoI *PstI*
ACCATGGCCCCAGGTGAAACCTGCAGCAGTCTGGGGGAGGATTGGTGCAGGCTGGGGGCCCT
 T M A Q V K L Q Q S G G G L V Q A G G P
 CTGAGGCTCTCCTGTGCAGCCTCTGGACGCACCTTCAGTAACTATGCCGTGGGCTGGTTC
 L R L S C A A S G R T F S N Y A V G W F
 CGCCAGGCTCCAGGGAAGGAGCGTGAGTTTGTGCTGCTATTAGCCGTGATGGTGGGCGC
 R Q A P G K E R E F V A A I S R D G G R
 ACATACTATGCGGACTCCGTGAAGGGCCGATTCGCCGTCTCCAGAGACTACGCCGAGAAC
 T Y Y A D S V K G R F A V S R D Y A E N
 ACGGTGTATCTGCAAATGAACAGCCTGAAACCTGAGGACACGGCCGTTTATTACTGTAAC
 T V Y L Q M N S L K P E D T A V Y Y C N
 ACAAGGGCCTACTGGGGCCAGGGGACCCAGGTCACCGTCTCCTCAGCGCACCACAGCGAA
 T R A Y W G Q G T Q V T V S S A H H S E
 GACCCAGCTCCGCGGCCGCCATCACCATCACCATCACGGGGCCGCAGAACAAAACTC
 D P S S A A A H H H H H H G A A E Q K L
 ATCTCAGAAGAGGATCTGAATTCTGAGAAAGATGAGCTATGACCAATTG
 I S E E D L N S E K D E L *MunI*

Fig.16.

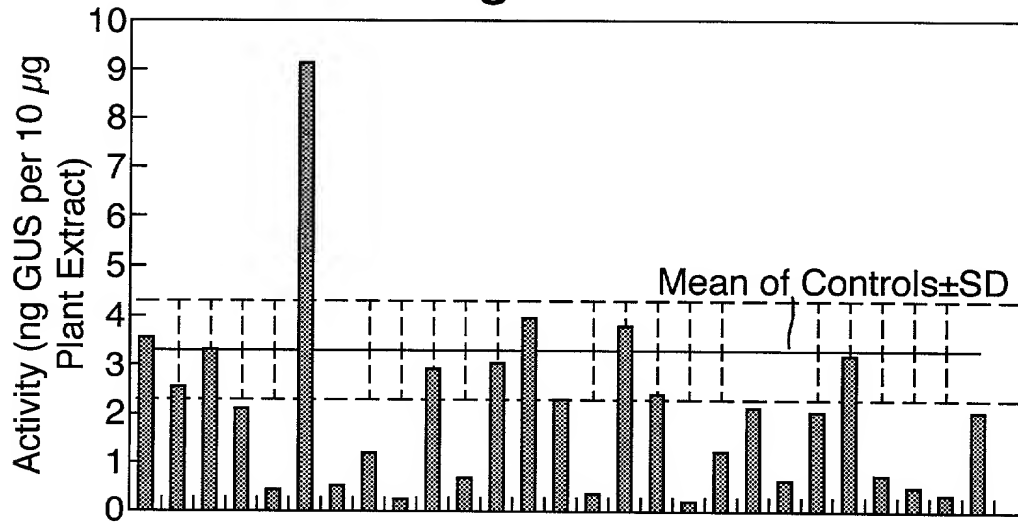


Fig.17A.

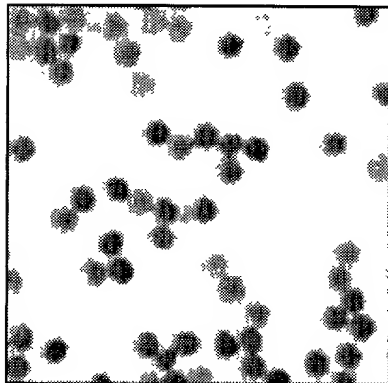
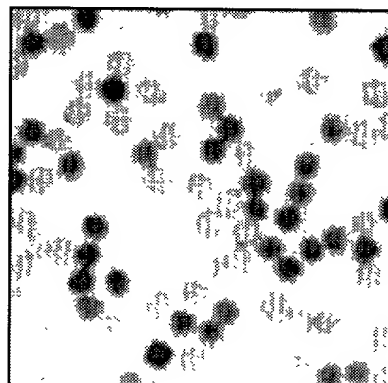


Fig.17B.



10/23

Fig.18.

NcoI PstI

 1 ccatggaggt gcagctgcag gagtcagggg gaggattggt gcaggctggg
 >>.....HCV33.....>
 m e v q l q e s g g g l v q a g
 51 ggctctctga gactctcctg tgcagcctcg ggacgcgcca ccagtgggtca
 >.....HCV33.....>
 g s l r l s c a a s g r a t s g
 101 tggtcactat ggtatgggct ggttccgcca ggttccaggg aaggagcgtg
 >.....HCV33.....>
 h g h y g m g w f r q v p g k e r
 151 agtttgtcgc agctattagg tggagtggta aagagacatg gtataaagac
 >.....HCV33.....>
 e f v a a i r w s g k e t w y k d
 201 tccgtgaagg gccgattcac catctccaga gataacgcca agactacggt
 >.....HCV33.....>
 s v k g r f t i s r d n a k t t
 251 ttatctgcaa atgaacagcc tgaacactga agatacggcc gtttattatt
 >.....HCV33.....>
 v y l q m n s l k p e d t a v y y
 301 gtgccgctcg accgggtccgc gtggatgata tttccctgcc gggtggggtt
 >.....HCV33.....>
 c a a r p v r v d d i s l p v g f
 BstEII

 351 gactactggg gccaggggac ccaggtcacc gtctcctcag aaccaagac
 >.....HCV33.....>>>>..Hinge...>
 d y w g q g t q v t v s s e p k
 401 accaaaacca caaccacaac cacaaccaca accacaaccc aatcctacaa
 >.....Hinge.....>
 t p k p q p q p q p q p n p t
 451 cagaatccaa gtgtcccaaa tgtccagccc ctgagctcct gggagggccc
 >.....Hinge.....>>>>.....CH2.....>
 t e s k c p k c p a p e l l g g p
 501 tcagtcttca tcttcccccc gaaaccaag gacgtcctct ccatttctgg
 >.....CH2.....>
 s v f i f p p k p k d v l s i s
 551 gaggcccgag gtcacgtgcg ttgtggtaga cgtgggcccag gaagaccccg
 >.....CH2.....>
 g r p e v t c v v v d v g q e d p
 601 aggtcagttt caactggtac attgatggcg cagaggtgcg aacggccaac
 >.....CH2.....>
 e v s f n w y i d g a e v r t a n
 651 acgaggccaa aagaggaaca gttcaacagc acgtaccgcg tggtcagcgt
 >.....CH2.....>

0973746-12100

Fig.18 (Cont).

t r p k e e q f n s t y r v v s
 701 cctgcccatac cagcaccagg actggctgac ggggaaagag ttcaaatac
 >.....CH2.....>
 v l p i q h q d w l t g k e f k c
 HincII

 751 aggtcaacaa caaagctctc ccggccccca tcgagaagac catctccaag
 >.....CH2.....>
 k v n n k a l p a p i e k t i s k
 801 gccaaagggc agaccggga gccgcaggtg tacgccctgg cccacacccg
 >...>>>.....CH3.....>
 a k g q t r e p q v y a l a p h
 851 ggaagagctg gccaaaggaca ccgtgagcgt aacctgcctg gtcaaaggct
 >.....CH3.....>
 r e e l a k d t v s v t c l v k g
 901 tctaccacac tgatatcaac gttgagtggc agaggaacgg tcagccggag
 >.....CH3.....>
 f y p p d i n v e w q r n g q p e
 951 tcagagggca cctacgccac cagccaccc cagctggaca acgacgggac
 >.....CH3.....>
 s e g t y a t t p p q l d n d g
 1001 ctacttcttc tacagcaagc tctcggtggg aaagaacacg tggcagcggg
 >.....CH3.....>
 t y f l y s k l s v g k n t w q r
 1051 gagaaacctt cacctgtgtg gtgatgcacg aggccctgca caaccactac
 >.....CH3.....>
 g e t f t c v v m h e a l h n h y
 EcoRI

 1101 acccagaaat ccatcaccca gtcttcgggt aaataataag aattcgagct
 >.....CH3.....>>
 t q k s i t q s s g k
 1151 cgaa

12/23

Fig.19.

NcoI PstI

 1 ccatggaggt gcagctgcag gagtcagggg gaggattggt gcaggctggg
 >>.....HCV33.....>
 m e v q l q e s g g g l v q a g

 51 ggctctctga gactctcctg tgcagcctcg ggacgcgcca ccagtgggtca
 >.....HCV33.....>
 g s l r l s c a a s g r a t s g

 101 tggtcactat ggtatgggct ggttccgcca ggttccaggg aaggagcgtg
 >.....HCV33.....>
 h g h y g m g w f r q v p g k e r

 151 agtttgtcgc agctattagg tggagtggta aagagacatg gtataaagac
 >.....HCV33.....>
 e f v a a i r w s g k e t w y k d

 201 tccgtgaagg gccgattcac catctccaga gataacgcca agactacggt
 >.....HCV33.....>
 s v k g r f t i s r d n a k t t

 251 ttatctgcaa atgaacagcc tgaaacctga agatacggcc gtttattatt
 >.....HCV33.....>
 v y l q m n s l k p e d t a v y y

 301 gtgccgctcg accgggtccgc gtggatgata tttccctgcc ggttggggtt
 >.....HCV33.....>
 c a a r p v r v d d i s l p v g f
 BstEII

 351 gactactggg gccaggggac ccagggtcacc gtctcctcag aacccaagac
 >.....HCV33.....>>>>...Hinge...>
 d y w g q g t q v t v s s e p k

 401 accaaaacca caaccacaac cacaaccaca accacaaccc aatcctacaa
 >.....Hinge.....>
 t p k p q p q p q p q p q p n p t

 451 cagaatccaa gtgtcccaaa tgtccagccc ctgagctcct gggagggccc
 >.....Hinge.....>>>>.....CH2.....>
 t e s k c p k c p a p e l l g g p

 501 tcagtcttca tcttcccccc gaaacccaag gacgtcctct ccatttcttg
 >.....CH2.....>
 s v f i f p p k p k d v l s i s

 551 gaggcccgag gtcacgtgcg ttgtggtaga cgtgggccag gaagaccccg
 >.....CH2.....>
 g r p e v t c v v v d v g q e d p

 601 aggtcagttt caactggtac attgatggcg cagaggtgcg aacggccaac
 >.....CH2.....>
 e v s f n w y i d g a e v r t a n

 651 acgaggccaa aagaggaaca gttcaacagc acgtaccgcg tggtcagcgt
 >.....CH2.....>

0973746 "13100

Fig.19 (Cont).

t r p k e e q f n s t y r v v s
 701 cctgcccatac cagcaccagg actggctgac ggggaaagag ttcaaatac
 >.....CH2.....>
 v l p i q h q d w l t g k e f k c
 HincII

 751 aggtcaacaa caaagctctc ccggccccca tcgagaagac catctccaag
 >.....CH2.....>
 k v n n k a l p a p i e k t i s k
 801 gccaaagggc agaccggga gccgcaggtg tacgccctgg cccacaccg
 >...>>>.....CH3.....>
 a k g q t r e p q v y a l a p h
 851 ggaagagctg gccaaaggaca ccgtgagcgt aacctgcctg gtcaaaggct
 >.....CH3.....>
 r e e l a k d t v s v t c l v k g
 901 tctaccacc tgatatcaac gttgagtggc agaggaacgg tcagccggag
 >.....CH3.....>
 f y p p d i n v e w q r n g q p e
 951 tcagagggca cctacgccac cagccaccc cagctggaca acgacgggac
 >.....CH3.....>
 s e g t y a t t p p q l d n d g
 1001 ctacttctc tacagcaagc tctcgggtgg aaagaacacg tggcagcggg
 >.....CH3.....>
 t y f l y s k l s v g k n t w q r
 1051 gagaaacctt cacctgtgtg gtgatgcacg aggccctgca caaccactac
 >.....CH3.....>
 g e t f t c v v m h e a l h n h y
 1101 acccagaaat ccatcaccca gtcttcgggt aaatctgaga aagatgagct
 >.....CH3.....>>>.....SEKDEL.....>
 t q k s i t q s s g k s e k d e
 EcoRI

 1151 ataataagaa ttcgagctcg aa
 >
 l

Series 1	2	3	4	5	10	11	13	14	15	17
0.017	0.024	0.031	0.026	0.011	0.017	0.014	0.016	0.026	0.025	

Plant number

Fig.21.

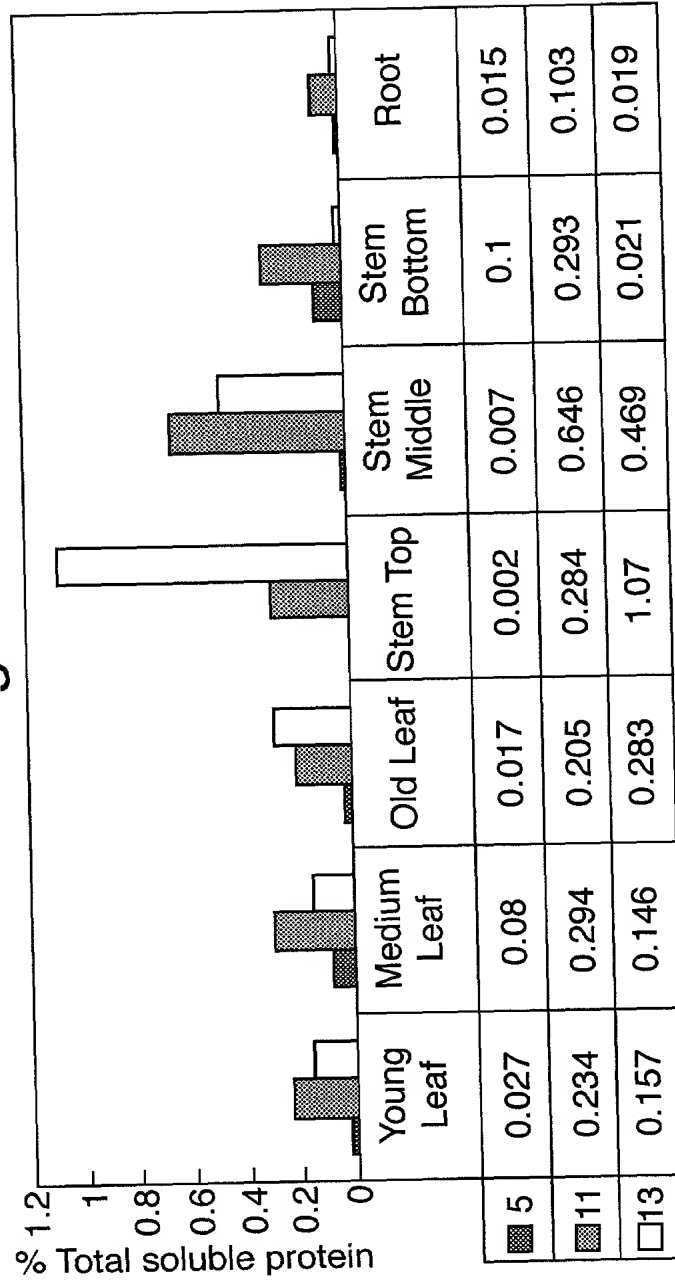


Fig.22.

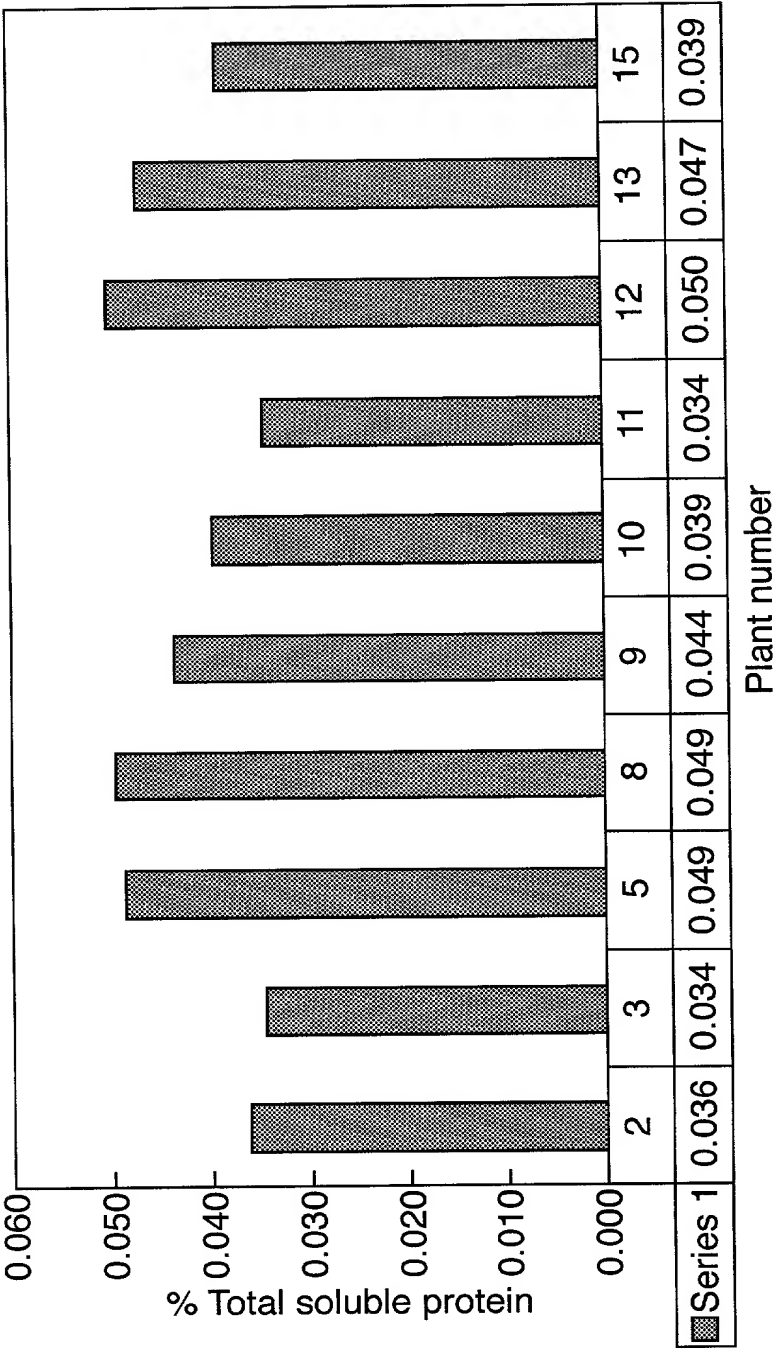


Fig.23.

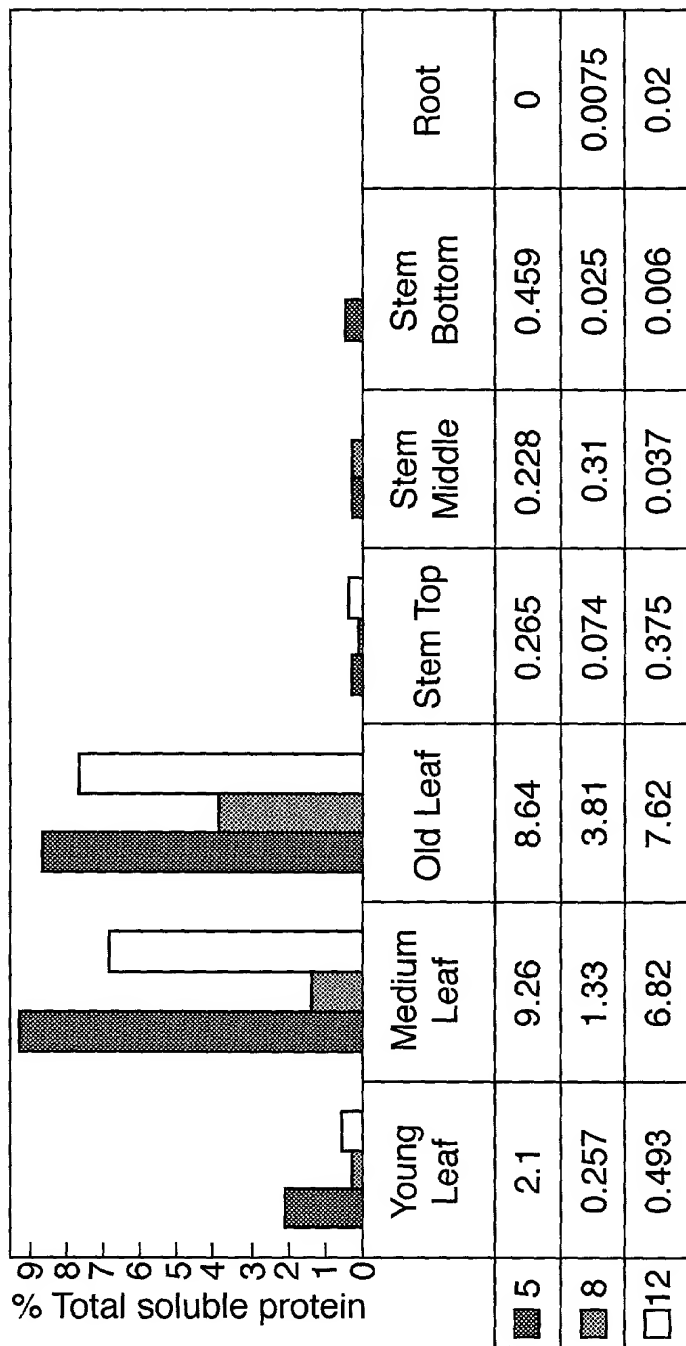


Fig.24.

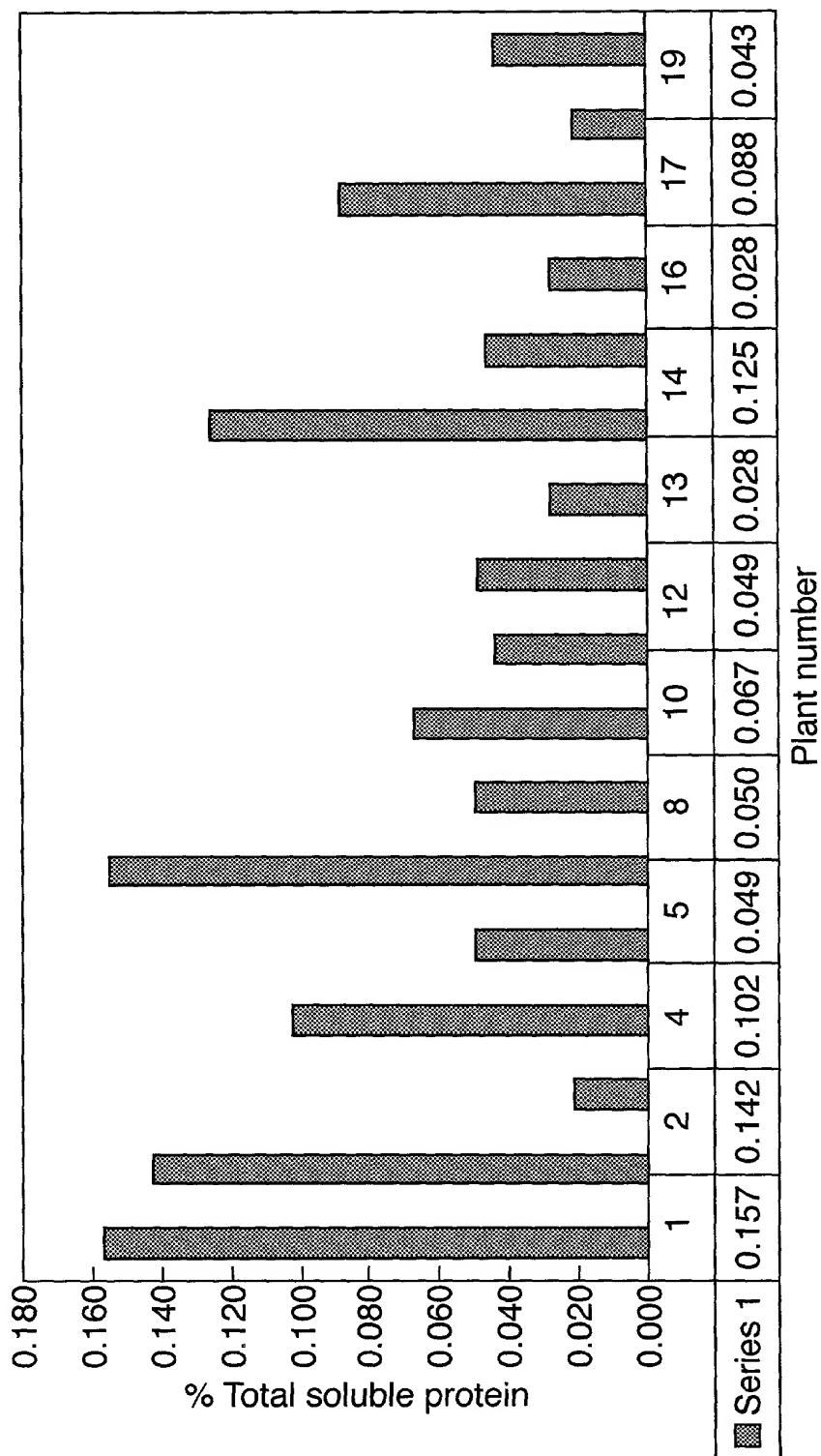


Fig. 25.

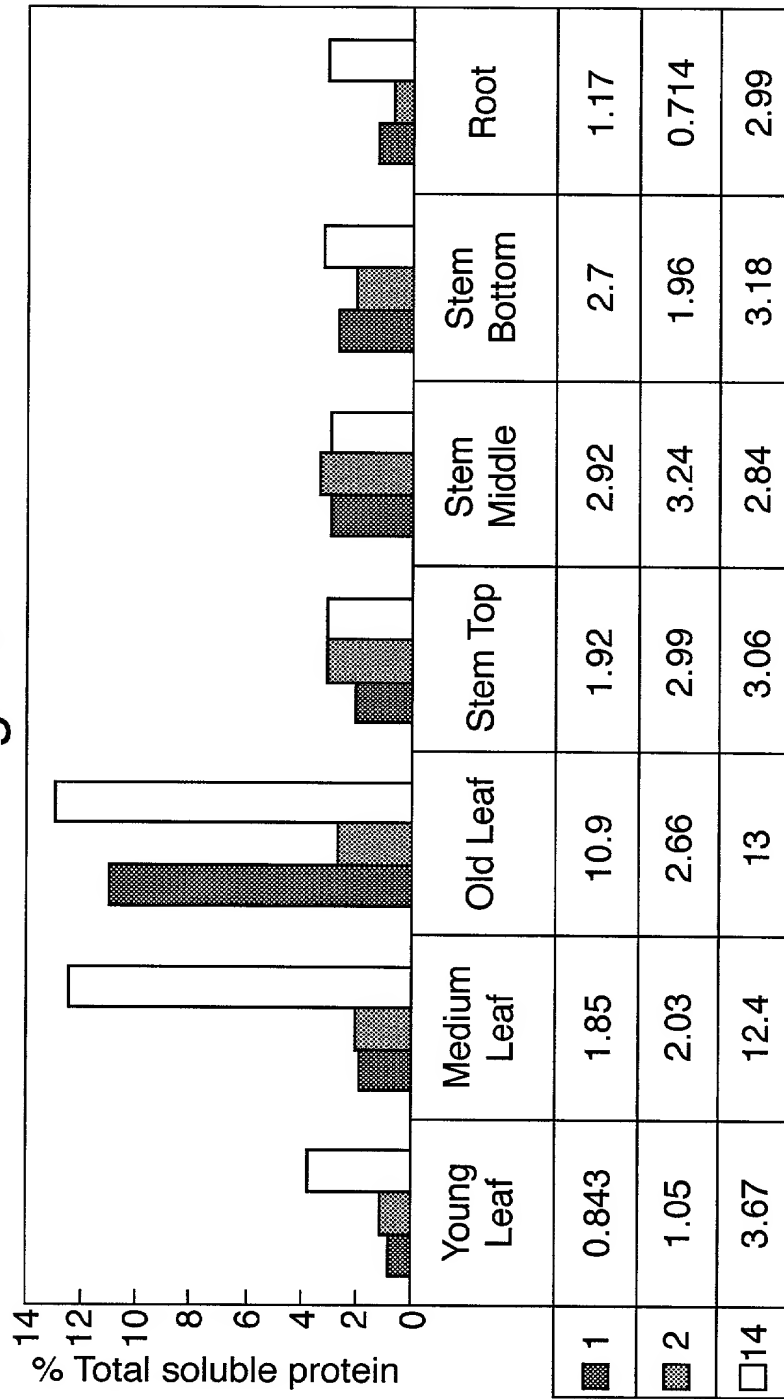


Fig.26.

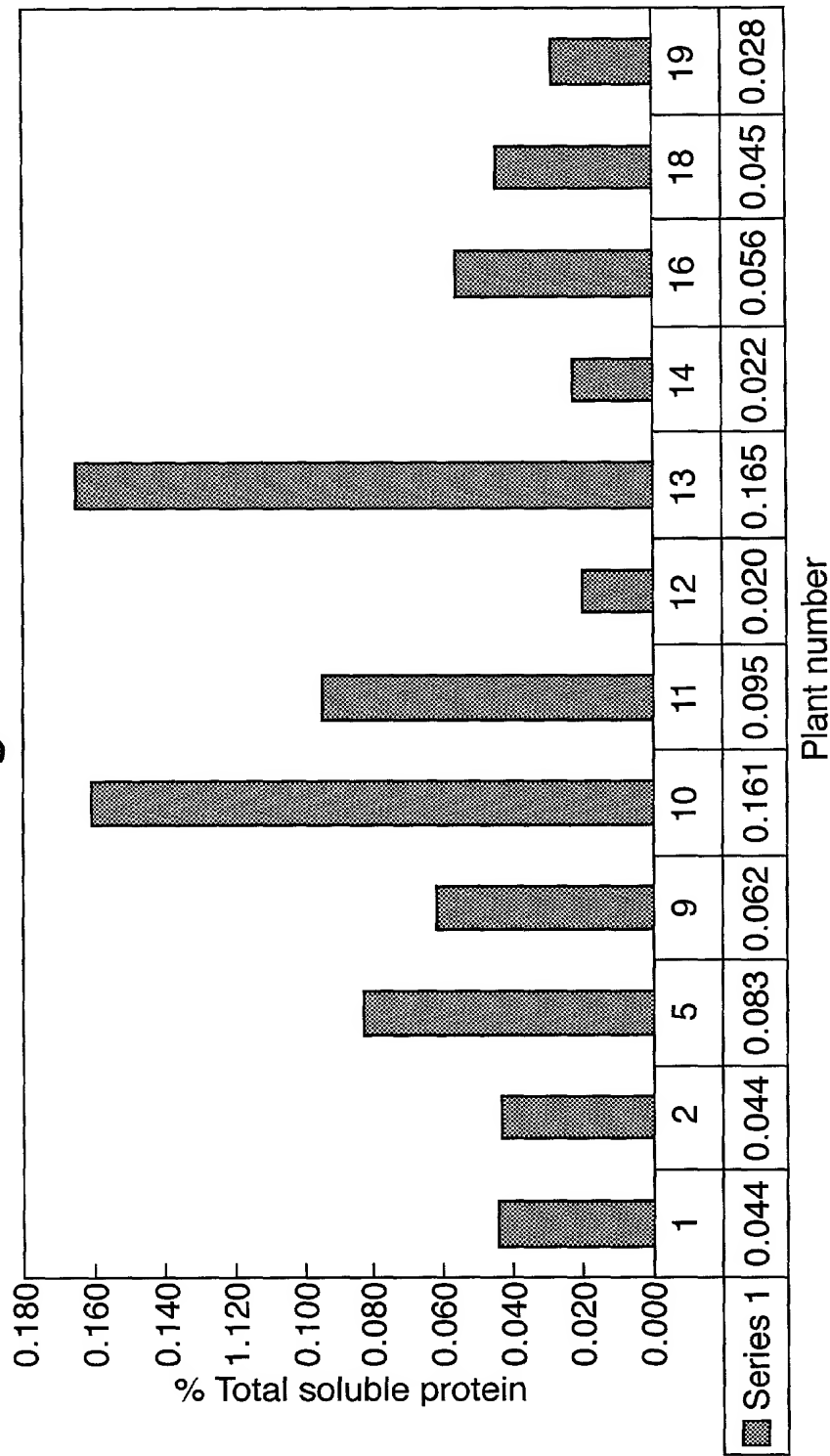


Fig.27.

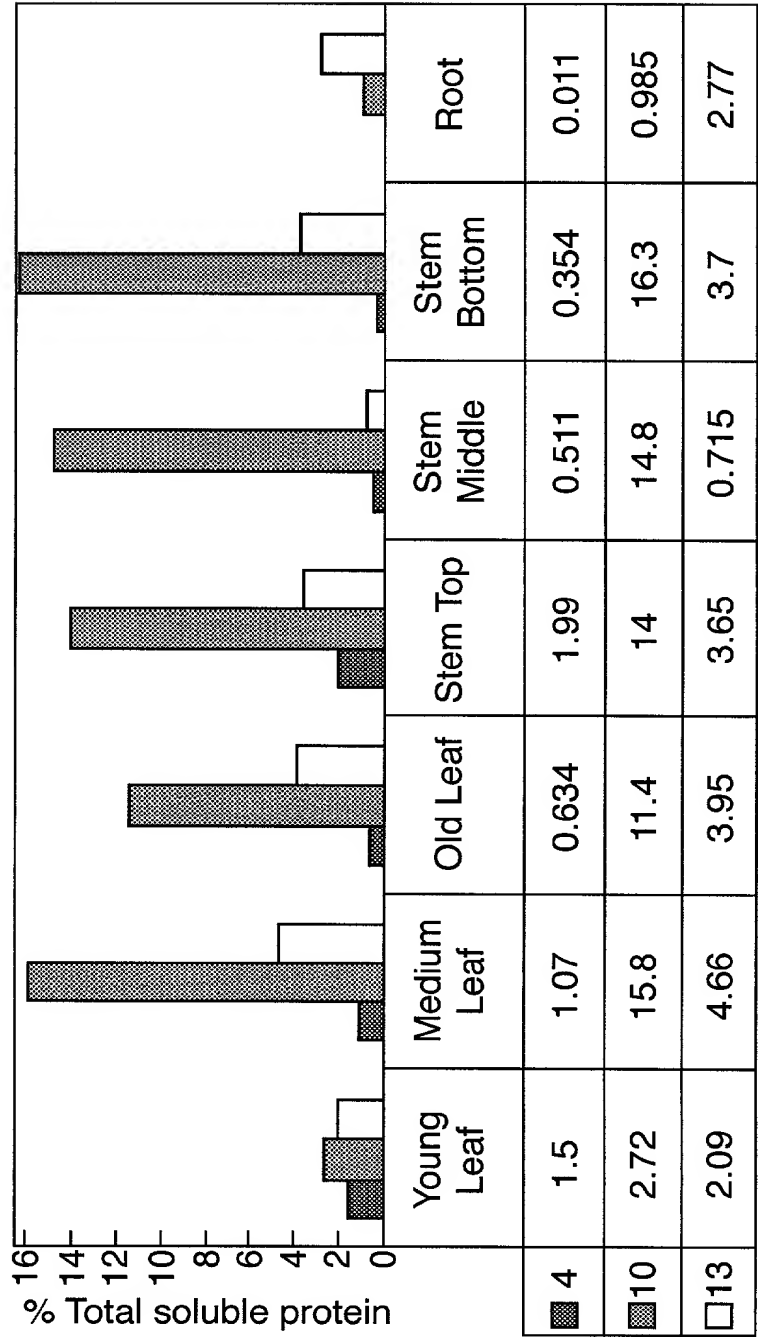


Fig.28.

NcoI PstI

 1 ccattggccca ggtgcagctg caggagtctg ggggaggctt ggtgcaggct
 M A Q V Q L Q E S G G G L V Q A
 51 ggggggtctc tgaggtctct ctgtgcagcc tctggaagca ttttcagacg
 G G S L R L S C A A S G S I F R
 101 tccgcatatg ggttgggtcc gccaggctcc agggcaggag cgcgagttgg
 R P H M G W F R Q A P G Q E R E L
 151 tcgcaactgat ttctgcgggt ggtcgtacat ggtatgcaga ctccgtgaag
 V A L I S A G G R T W Y A D S V K
 201 ggccgattca ccattctccag agacaacgcc aagaacacgc tgtatctgca
 G R F T I S R D N A K N T L Y L
 251 aatgaacagc ctgaaacctg aggacacggc cgtttattac tgtactgccg
 Q M N S L K P E D T A V Y Y C T A
 BstEII

 301 ggggttcgta ctggggccag gggacccagg tcaccgtcgc ctcagaaccc
 G G S Y W G Q G T Q V T V A S E P
 351 aagacaccaa aaccacaacc agcggccgcc catcaccatc accatcacgg
 K T P K P Q P A A A H H H H H H
 401 ggccgcagaa caaaaactca tctcagaaga ggatctgaat ggggccgcat
 G A A E Q K L I S E E D L N G A A
 MunI

 451 agtaacaatt g

008723 9242260

Fig.29.

